



“Walking for Water”

Objective: Students will compare their own experiences with the availability of water to those in third world countries.

Grade Level

Middle School, High School

Time Frame

Approximately 45 minutes

Learning Objectives	Vocabulary	Science TEKS	Materials
Students will: <ul style="list-style-type: none"> Investigate and compare water availability in different areas of the world Students will predict how their lives would be affected if the availability of their water source changed 	<ul style="list-style-type: none"> <i>Groundwater</i> <i>Surface water</i> <i>Water stress</i> <i>Infectious disease</i> <i>Waste water</i> <i>Water treatment</i> <i>Point source pollution</i> <i>Nonpoint source pollution</i> 	Aquatic Science: 7(A), (C); 12 (A), (B), (C) (D) Biology : 11(B), (C); 12(D) Chemistry: 10 (E) Environmental Systems: 5(B), (C), (D), (F); 9 (A), (D)	<ul style="list-style-type: none"> Water-Aware Fact Sheet (included) Women Bear The Weight of Water Sheet (included) Water information sheets on Ethiopia, Kenya, and Honduras (included) Empty plastic gallon jugs Water

Background

Water resources are being used faster than they can be recharged leading to several water issues. This lesson leads students to investigate the water availability in different areas of the world and the hardships these populations face due to water resources or lack there-of. Students will carry water over a short distance to understand what some of these populations must endure to secure drinking water for their families. Students will compare their access to clean water to that of third world countries.

Students should experience carrying the water individually. Students can work in groups to answer the questions in the Water-Aware Fact Sheet and the Women Bear the Weight of Water Sheet.

Engage

- Start a discussion with the students using the following questions:
 - Where do you get your drinking water from? (answers might include the sink, the store, the water fountain etc.)
 - What would you do if you did not have access to tap water? In other words, if there weren't any water pipes leading to your house, school, etc.?
 - Do you think everyone has the same access to water that you do?
- Students will develop a hypothesis about the difficulty level of carrying a gallon of water ½ mile.

Explore

1. Students will fill a gallon jug with water and walk the distance of ½ mile. The walking path should be pre-determined by the instructor.
2. Have students try to lift two or three gallons of water at a time (they do not need to walk ½ mile with this weight as water can get very heavy).
3. Students will discuss their experiences as a group. Use the following questions to lead the discussion:
 - a. Were your predictions about the difficulty level of carrying the water jug accurate?
 - b. Would you be able to carry the water longer distances?
 - c. Could you carry the water for 3 miles?
 - d. Could you do this every day?
 - e. How would your everyday life be affected if you had to do this every day in order to ensure your families survival?
 - f. How would you feel if, after all this work, the water still wasn't safe to drink?

Explain

1. Explain to students that many people in other parts of the world do not have access to running tap water or to wells. People (most often women) in other parts of the world carry as much as twelve gallons of water on their heads very long distances to meet the needs of their families.
2. Distribute materials on "Women Bear the Weight of Water" and information sheets on Kenya, Honduras and Ethiopia. Students will answer "Women Bear the Weight of Water" Reading for Comprehension Questions.
3. Students will discuss facts relating to the difficulty and sociological implications of the unavailability of water in each of the above regions as well as discuss the statistical information regarding average distance travelled for water.

Elaborate

1. Students should compare their experience of carrying the water jug and walking a 1/2mile to what they think people in the above mentioned countries experience. Are students better able to empathize with third world conditions after the activity? Why or why not?
2. Women in many areas of the world must carry large amounts of water long distances to provide the basic needs of their families. What other tasks might these women be doing if they did not have to spend so many hours (sometimes as much as 20 hours per week) carrying water? What could you do with 20 extra hours per week?

Evaluate

Students will read "Water-Aware Fact Sheet" and answer the Reading for Comprehension Questions.